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COCHRANE REVIEWS

Cochrane Collaborative Review Group on Peripheral Vascular Diseases: Review Abstract

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Introduction

The following abstract is part of an ongoing quarterly series of articles produced by the Cochrane Collaborative Review Group on Peripheral Vascular Diseases.

A principal aim of the Cochrane Collaboration is to provide systematic reviews of the effectiveness of health-care interventions. These reviews, published in the Cochrane Library, need to be comprehensive, so that an individual using the Library can obtain the latest evidence on interventions for specific conditions. In some cases, the paucity of evidence means that formal meta-analyses are not feasible, but with the advent of more trials, updating of reviews on the Library can include meta-analysis. Such is the case with the following review in surgery for small asymptomatic abdominal aortic anerysms, in which only one trial has been published to date; but at least one other is in progress, raising the possibility of a meta-analysis at a later date.

In future, review abstracts appearing on the Cochrane Library will be presented in a different, simplified format to permit greater accessibility to the public. However, Cochrane review abstracts published in the *European Journal of Vascular and Endovascular Surgery* will be presented in the more traditional journal style. Review abstracts on Cochrane reviews are also indexed on MEDLINE.

If you are interested in writing a Cochrane review or becoming a member of the Peripheral Vascular Diseases Group, please contact:

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Abstract: Surgery for small asymptomatic abdominal aortic aneurysms
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Objective

To determine in patients with an asymptomatic abdominal aortic aneurysm (AAA) of between 4 and 6 cm diameter the mortality, quality of life and cost effectiveness of early surgical repair compared to routine ultrasound surveillance.

Search Strategy

All publications describing (or which might describe) RCTs of surgery for small asymptomatic AAAs were sought through computerised searches of EMBASE and MEDLINE, and by hand searching relevant journals, using the search strategy described by the Peripheral Vascular Diseases Review Group.

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Selection Criteria

Randomised controlled trials in which men and women with asymptomatic AAA of diameter 4–6 cm were randomly allocated to early surgery or ultrasound surveillance at least once every 12 months. Outcome measures had to include mortality, quality of life or financial costs.

Data Collection and Analysis

Data were abstracted by one reviewer and checked by others. Due to the small number of trials at present no tests of heterogeneity or sensitivity analyses were performed.

Main Results

Only one trial, the U.K. Small Aneurysm Trial, fulfilled the criteria for inclusion. This trial found no differences in mortality between the early surgery and surveillance groups at 2, 4 and 6 years following randomisation (6 years Peto OR 1.01 [95% CI 0.77–1.31]). Mean health service costs were higher in the surgery than the surveillance group, difference £1,064 per patient [95% CI 796–1332]). Quality of life remained similar in the two groups but early surgery patients perceived themselves healthier and had less pain one year following randomisation. The trial was not adequately powered to analyse subgroups by, for example, age or aneurysm size.

Conclusions

The results from the one trial to date indicate that patients with asymptomatic AAA of 4–5.5 cm should normally have regular ultrasound surveillance accompanied by surgical intervention for aneurysms which grow rapidly (>1 cm per year) or reach 5.5 cm. The results are awaited of a major trial in progress in the U.S.A.

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